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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,298	07/10/2003	David Brault	84215-402 ADB	1617
23529	7590	06/07/2006	EXAMINER	
ADE & COMPANY INC. P.O. BOX 28006 1795 HENDERSON HIGHWAY WINNIPEG, MB R2G1P0 CANADA			GELLNER, JEFFREY L	
			ART UNIT	PAPER NUMBER
			3643	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/616,298

Applicant(s)

BRAULT ET AL.

Examiner

Jeffrey L. Gellner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-17,20-28,30,31 and 33-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 4-17 is/are allowed.
- 6) ☒ Claim(s) 20-25, 28,30,35-37 and 42-46 is/are rejected.
- 7) ☒ Claim(s) 26,27,31,33,34 and 38-41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The indicated allowability of claims 37 and 42-46 is withdrawn in reconsideration of the reference to Lewis et al. (US 1,817,384). Rejections based on this reference follow. Examiner regrets any inconvenience to Applicant.

#### ***Claim Objections***

Claim 37 is objected to because of the following informality:

In claim 37, line 10, "the fan" lacks antecedent basis.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC §103***

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-25, 28, 30, 35, and 36 are rejected under 35 U.S.C. §103(a) as being unpatentable over Takano (JP2000-69858) in view of Meckler (US 5,279,609).

As to Claim 20, Takano discloses a climate control system for use with a greenhouse (Figs. 1,2, and 4) having an exterior wall of transparent panels comprising a bench (best shown in Fig. 4) arranged to provide a support surface; and, an air handling system (shown in Figs. 1 and 2) comprising an air intake plenum (7 and 8 of Fig. 1) having at least one air intake (8a of

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Figs. 1 and 2), a fan (6 of Fig. 1) connected to the plenum, an outlet duct (generally around 10 of Fig. 1) connected to the fan having an air outlet (11 of Fig. 1) from the outlet duct into the interior of the greenhouse, and at least one air conditioning component (9 of Figs. 1 and 2) for conditioning the air transported from the plenum to the outlet duct by the fan, the plenum including at least a part thereof mounted underneath the bench (Figs. 1 and 4). Not disclosed is a plurality of air handling systems each associated with a respective bench (one to one association). Meckler discloses a plurality of air handling systems each associated with a specific area (Fig. 1 and col. 3, lines 34-56). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Takano by having the a plurality of air handling systems as disclosed Meckler so as to serve separate comfort air spaces (see Meckler at col. 1 lines 5-10) and to have a correspondence between benches and air handling systems so as to achieve a micro-climate for each bench so as to optimize plant growth on each bench.

As to Claim 21, Takano as modified by Meckler further disclose the outlet duct including a vertical duct section at one end of the bench (region above 6 in Fig. 1 of Takano).

As to Claim 22, Takano as modified by Meckler further disclose a horizontal discharge duct section and extending over the bench (Fig. 2 of Takano).

As to Claim 23, the limitations of Claim 20 are disclosed as described above. Not disclosed is the tube shaped to form an elliptical cross section that is wider than it is high. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of Takano as modified by Meckler by having the tube flexible and shaped to

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form an elliptical cross section that is wider than it is high depending upon cost and availability of tubing.

As to Claims 24 and 25, the limitations of Claim 20 are disclosed as described above. Not disclosed is a heating or cooling coil in the plenum underneath the bench. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of Takano as modified by Meckler by having a heating or cooling coil in the plenum underneath the bench so as to moderate the temperature in the greenhouse so as to optimize plant growth.

As to Claim 28, Takano as modified by Meckler further disclose a fan in a housing at the end of the bench (Fig. 1 of Meckler).

As to Claim 30, the limitations of claim 20 are disclosed as described above. Not disclosed is each fan in a fan housing at the end of the bench at an exterior wall. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of Takano as modified by Meckler by having each fan in a fan housing at the end of the bench at an exterior wall as a known efficient placement of a fan for cooling a greenhouse.

As to Claim 35, Takano as modified by Meckler further disclose the outlet duct including a vertical duct section at one end of the bench (region above 6 in Fig. 1 of Takano).

As to Claim 36, Takano as modified by Meckler further disclose a horizontal discharge duct section and extending over the bench (Fig. 2 of Takano).

Claim 44 is rejected under 35 U.S.C. §103(a) as being unpatentable over Lewis et al. (US 1,817,384).

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As to claim 44, the limitations of claim 43 are disclosed as described below. Not disclosed is the horizontal duct being a flexible tube and with an elliptical cross section which is wider than high. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Lewis et al. by having the horizontal duct being a flexible tube and with an elliptical cross section which is wider than high depending upon needed flow rate.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 37, 42, 43, 45, and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis et al. (US 1,817,384).

As to claim 37, Lewis et al. discloses a climate control system (see Fig. ) for use with a greenhouse having an exterior wall of transparent panels comprising a bench (in that the system of Lewis et al. is capable of being used in a greenhouse) comprising a bench (region around 12 of Fig.) located in the interior and capable of providing a surface for support of crop material for receiving natural light (some of the light would be natural); an air handling system comprising an air intake plenum (16 of Fig.) with an air intake (around 16 of Fig.), an outlet duct (10 of Fig.) with a fan (17 of Fig.), and an air conditioning component (18 of Fig.), wherein the air intake plenum includes at least a part mounted under the bench (Fig.) and the outlet duct above the bench (Fig.).

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As to claim 42, Lewis et al. further disclose a vertical duct (see Fig.).

As to claim 43, Lewis et al. further disclose the duct over the bench (Fig.).

As to claim 45, Lewis et al. further disclose one duct on a sidewall at one end of the bench (Fig.).

As to claim 46, Lewis et al. further disclose at least one air outlet with perforations on the underside (Fig.).

#### ***Allowable Subject Matter***

Claims 1 and 4-17 allowed.

Claims 26, 27, 31, 33, 34, and 38-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments with respect to all non-cancelled current claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'J. L. Gellner', with a stylized flourish at the end.

Jeffrey L. Gellner  
Primary Examiner  
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